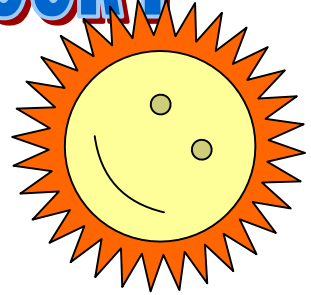


# Winkelsumme im Dreieck I

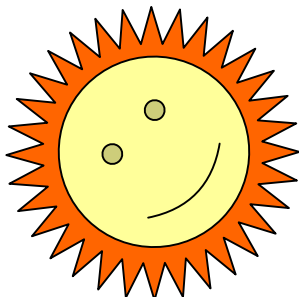
Ergänze die nachfolgende Tabelle im Heft.

$\alpha$ ,  $\beta$ ,  $\gamma$  : Innenwinkel im Dreieck

$\alpha_1$ ,  $\beta_1$ ,  $\gamma_1$  : zugehörige Außenwinkel



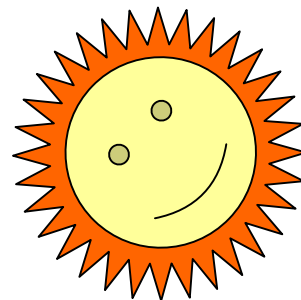
Aufgabe Nr.	$\alpha$	$\beta$	$\gamma$	$\alpha_1$	$\beta_1$	$\gamma_1$
1	$129^\circ$	$32^\circ$				
2	$21^\circ$		$156^\circ$			
3	$30^\circ$		$85^\circ$			
4	$41^\circ$				$99^\circ$	
5	$4^\circ$					$53^\circ$
6		$14^\circ$	$89^\circ$			
7		$86^\circ$		$88^\circ$		
8			$34^\circ$		$63^\circ$	
9		$2^\circ$				$78^\circ$
10			$142^\circ$	$149^\circ$		
11			$117^\circ$		$127^\circ$	
12			$142^\circ$			$38^\circ$
13				$121^\circ$	$169^\circ$	
14				$125^\circ$		$163^\circ$
15					$95^\circ$	$91^\circ$



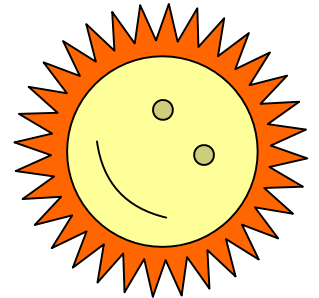
# Winkelsumme im Dreieck I

## Lösungen

Aufgabe Nr.	$\alpha$	$\beta$	$\gamma$	$\alpha_1$	$\beta_1$	$\gamma_1$
1	129°	32°	19°	51°	148°	161°
2	21°	3°	156°	159°	177°	24°
3	30°	65°	85°	150°	115°	95°
4	41°	81°	58°	139°	99°	122°
5	4°	49°	127°	176°	131°	53°
6	77°	14°	89°	103°	166°	91°
7	92°	86°	2°	88°	94°	178°
8	29°	117°	34°	151°	63°	146°
9	76°	2°	102°	104°	178°	78°
10	31°	7°	142°	149°	173°	38°
11	10°	53°	117°	170°	127°	63°
12	20°	18°	142°	160°	162°	38°
13	59°	11°	110°	121°	169°	70°
14	55°	108°	17°	125°	72°	163°
15	6°	85°	89°	174°	95°	91°



# Winkelsumme im Dreieck II

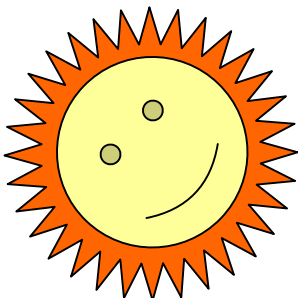


Ergänze die nachfolgende Tabelle im Heft.

$\alpha, \beta, \gamma$  : Innenwinkel im Dreieck

$\alpha_1, \beta_1, \gamma_1$  : zugehörige Außenwinkel

Aufgabe Nr.	$\alpha$	$\beta$	$\gamma$	$\alpha_1$	$\beta_1$	$\gamma_1$
1	$59^\circ$	$86^\circ$				
2	$14^\circ$		$140^\circ$			
3	$52^\circ$				$128^\circ$	
4	$3^\circ$					$168^\circ$
5	$19^\circ$					$66^\circ$
6		$19^\circ$	$103^\circ$			
7		$9^\circ$			$160^\circ$	
8	$12^\circ$					$168^\circ$
9		$11^\circ$				$19^\circ$
10			$66^\circ$	$174^\circ$		
11			$165^\circ$			$166^\circ$
12			$170^\circ$			$10^\circ$
13					$107^\circ$	$167^\circ$
14				$125^\circ$		$175^\circ$
15					$65^\circ$	$161^\circ$



# Winkelsumme im Dreieck II

Aufgabe Nr.	$\alpha$	$\beta$	$\gamma$	$\alpha_1$	$\beta_1$	$\gamma_1$
1	$59^\circ$	$86^\circ$	$35^\circ$	$121^\circ$	$94^\circ$	$145^\circ$
2	$14^\circ$	$26^\circ$	$140^\circ$	$166^\circ$	$154^\circ$	$40^\circ$
3	$52^\circ$	$111^\circ$	$17^\circ$	$128^\circ$	$69^\circ$	$163^\circ$
4	$3^\circ$	$12^\circ$	$165^\circ$	$177^\circ$	$168^\circ$	$15^\circ$
5	$19^\circ$	$47^\circ$	$114^\circ$	$161^\circ$	$133^\circ$	$66^\circ$
6	$58^\circ$	$19^\circ$	$103^\circ$	$122^\circ$	$161^\circ$	$77^\circ$
7	$20^\circ$	$9^\circ$	$151^\circ$	$160^\circ$	$171^\circ$	$29^\circ$
8	$6^\circ$	$12^\circ$	$162^\circ$	$174^\circ$	$168^\circ$	$18^\circ$
9	$8^\circ$	$11^\circ$	$161^\circ$	$172^\circ$	$169^\circ$	$19^\circ$
10	$6^\circ$	$108^\circ$	$66^\circ$	$174^\circ$	$72^\circ$	$114^\circ$
11	$1^\circ$	$14^\circ$	$165^\circ$	$179^\circ$	$166^\circ$	$15^\circ$
12	$7^\circ$	$3^\circ$	$170^\circ$	$173^\circ$	$177^\circ$	$10^\circ$
13	$73^\circ$	$13^\circ$	$94^\circ$	$107^\circ$	$167^\circ$	$86^\circ$
14	$55^\circ$	$120^\circ$	$5^\circ$	$125^\circ$	$60^\circ$	$175^\circ$
15	$46^\circ$	$115^\circ$	$19^\circ$	$134^\circ$	$65^\circ$	$161^\circ$

